CLAIMS

1. Cosmetic and/or dermatological composition intended for treating keratin fibres, in particular human keratin fibres and more particularly human hair, comprising, in a support which is suitable for keratin fibres:

(a) at least one enzyme of 2-electron oxidoreductase type in the presence of at least one donor for the said enzyme,

(b) at least one nonionic amphiphilic polymer containing at least one hydrophilic unit and at least one fatty chain.

2. Composition according to Claim 1, characterized in that the 2-electron oxidoreductase is chosen from uricases of animal, microbiological or biotechnological origin.

3. Composition according to Claim 1 or 2, characterized in that the 2-electron oxidoreductase(s) represent(s) from 0.01 to 20% by weight relative to the total weight of the composition.

4. Composition according to Claim 3, characterized in that the 2-electron oxidoreductase(s) represent(s) from 0.1 to 5% by weight relative to the total weight of the composition.

5. Composition according to Claim 2, characterized in that the donor (or substrate) for the said 2-electron oxidoreductase is chosen from uric acid and its salts.

6. Composition according to any one of the preceding claims, characterized in that the donor(s) represent(s) from 0.01 to 20% by weight relative to the total weight of the composition.

7. Composition according to Claim 6, characterized in that the donor(s) represent(s) from 0.1 to 5% by weight relative to the total weight of the composition.

8. Composition according to any one of the preceding claims, characterized in that the nonionic amphiphilic polymers containing at least one fatty chain and at least one hydrophilic unit are chosen from the group consisting of nonionic celluloses modified with groups containing at least one fatty chain, hydroxypropylguars modified with groups containing at least one fatty chain, polyurethane ethers containing at least one fatty chain, copolymers of vinylpyrrolidone and of hydrophobic monomers containing a fatty chain, copolymers of C_1-C_6 alkyl methacrylates or acrylates and of amphiphilic monomers containing at least one fatty chain, copolymers of hydrophilic methacrylates or acrylates and of hydrophobic monomers containing at least one fatty chain.

9. Composition according to Claim 8, characterized in that the celluloses are hydroxyethylcelluloses modified with groups containing at least one alkyl, arylalkyl or alkylaryl group.

10. Composition according to Claim 8 or 9, characterized in that the cellulose is a hydroxyethylcellulose modified with groups containing at least one C_{16} alkyl group.

11. Composition according to Claim 8, characterized in that the celluloses are hydroxyethylcelluloses modified with groups containing at least one polyalkylene glycol alkylphenyl ether group.

12. Composition according to Claim 8, characterized in that the polyurethane ethers are modified with at least one C_8-C_{30} alkyl or alkenyl group.

13. Composition according to Claim 8, characterized in that the vinylpyrrolidone copolymers are vinylpyrrolidone/hexadecene or vinylpyrrolidone/ eicosene copolymers.

14. Composition according to Claim 8, characterized in that the nonionic amphiphilic polymer is an oxyethylenated methyl methacrylate/stearyl acrylate

copolymer.

15. Composition according to Claim 8, characterized in that the nonionic amphiphilic polymer is a polyethylene glycol methacrylate/lauryl methacrylate copolymer.

16. Composition according to any one of Claims 1 to 15, in which the nonionic amphiphilic polymers containing at least one fatty chain and at least one hydrophilic unit are used in an amount ranging from 0.05 to 10% by weight relative to the total weight of the composition.

17. Ready-to-use composition according to any one of Claims 1 to 16, for the oxidation dyeing of keratin fibres, and in particular human keratin fibres such as the hair, of the type also comprising, in a medium which is suitable for keratin fibres, at least one oxidation base and, optionally, one or more couplers.

18. Composition according to Claim 17, characterized in that the oxidation bases are chosen from para-phenylenediamines, double bases, ortho- or para-aminophenols and heterocyclic bases, as well as the addition salts of these compounds with an acid.

19. Composition according to Claim 17 or 18, characterized in that the oxidation bases are present in concentrations ranging from 0.0005 to 12% by weight relative to the total weight of the composition.

20. Composition according to any one of Claims 17 to 19, characterized in that the couplers are chosen from meta-phenylenediamines, meta-aminophenols, meta-diphenols and heterocyclic couplers, and the addition salts of these compounds with an acid.

21. Composition according to Claim 17 or 20, characterized in that the couplers are present in concentrations ranging from 0.0001 to 10% by weight relative to the total weight of the composition.

22. Composition according to Claim 18 or 20, characterized in that the addition salts with an acid for

the oxidation bases and the couplers are chosen from the hydrochlorides, hydrobromides, sulphates, tartrates, lactates and acetates.

23. Composition according to any one of Claims 17 to 22, characterized in that it also contains direct dyes.

24. Composition according to any one of Claims 1 to 23, characterized in that the medium which is suitable for the keratin fibres (or support) consists of water or of a mixture of water and at least one organic solvent.

25. Composition according to Claim 24, characterized in that the organic solvents can be present in proportions preferably ranging from 1 to 40% by weight approximately relative to the total weight of the composition, and even more preferably ranging from 5 to 30% by weight approximately.

26. Composition according to any one of Claims 1 to 25, characterized in that the pH ranges from 5 to 11 and preferably from 6.5 to 10.

27. Composition according to any one of Claims 1 to 26, characterized in that it also contains at least one cosmetic adjuvant used conventionally in compositions for dyeing, permanently reshaping or bleaching the hair, chosen from the group consisting of anionic, cationic, nonionic, amphoteric or zwitterionic surfactants or mixtures thereof, anionic, cationic, nonionic (other than those defined in the preceding claims), amphoteric or zwitterionic polymers or mixtures thereof, inorganic or organic thickeners, antioxidants, enzymes other than the 2-electron oxidoreductases, penetration agents, sequestering agents, fragrances, buffers, dispersing agents, conditioners, film-forming agents, preserving agents and opacifiers.

28. Process for dyeing keratin fibres, and in particular human keratin fibres such as the hair, characterized in that at least one ready-to-use dye composition as defined in any one of Claims 17 to 27 is

applied to the said fibres, for a period which is sufficient to develop the desired coloration.

29. Process according to Claim 28, characterized in that it includes a first step which consists in separately storing, on the one hand, a composition (A) comprising, in a medium which is suitable for dyeing, at least one oxidation base and optionally at least one coupler as defined in any one of Claims 17 to 22, and, on the other hand, a composition (B) containing, in a medium which is suitable for keratin fibres, at least one enzyme of 2-electron oxidoreductase type in the presence of at least one donor for the said enzyme as defined in any one of the preceding claims, and then in mixing them together at the time of use, before applying this mixture to the keratin fibres; composition (A) or composition (B) containing the nonionic amphiphilic polymer as defined in the preceding claims.

30. Multi-compartment dyeing device or "kit", characterized in that it contains a first compartment containing composition (A) as defined in Claim 29 and a second compartment containing composition (B) as defined in Claim 29.

31. Process for treating keratin fibres, in particular the hair, in order to obtain a permanent reshaping of this hair, in particular in the form of permanent-waved hair, this process comprising the following steps: (i) a reducing composition is applied to the keratin fibres to be treated, the keratin substance being placed under mechanical tension before, during or after the said application, (ii) the keratin substance is optionally rinsed, (iii) an oxidizing composition as defined in any one of Claims 1 to 16 and 24 to 27 is applied to the optionally rinsed keratin substance, (iv) the keratin substance is optionally rinsed again.

32. Process for treating keratin fibres, in particular the hair, in order to bleach them, this

process comprising the application of an oxidizing composition as defined in any one of Claims 1 to 16 and 24 to 27 optionally containing an auxiliary oxidizing agent and a second step of rinsing the keratin fibres.

OXIDIZING COMPOSITION AND USES FOR DYEING, FOR PERMANENTLY SHAPING OR FOR BLEACHING KERATIN FIBRES

The present application relates to a cosmetic composition intended for treating keratin fibres, comprising, in a support which is suitable for keratin substances:

(a) at least one enzyme of 2-electron oxidoreductase type in the presence of at least one donor for the said substances;

(b) at least one nonionic amphiphilic polymer containing at least one fatty chain and at least one hydrophilic unit;

as well as to processes for treating keratin fibres, in particular processes for dyeing, permanently reshaping or bleaching the hair, using this composition.